



C116276


A00594 (20)

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	<p>Contract No.: 20002 TECHN. PROTOCOL № 210-11 SPEC. № 3078/P03141 ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08; ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10 GR B8M,CL1; ASME SA-193/SA-193M-10GR B8M,CL1; ASTM A320/A320M-08GR B8M,CL 1; ASME SA-320/SA-320M-10 GR B8M,CL 1; NACE MR 0175-03; NACE MR 0103-10</p>	<p>Sheets: 7 Sheet: 6 QUALITY CERTIFICATE EN10204/3.1 Nr.283125 PLANT ORDER № 8015203078</p>	
	<p>CUSTOMER DSS INTERNATIONAL SA Switzerland</p>	<p>PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Пирунки из коррозионностойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВИЛИВАННЯ: Электропечь небу+АКР Round 20.000in/508.00mm L=8.590ft/2.620m Grade: 316/F316/316L/F316L</p>	<p>QUANTITY: (number of pcs) 1bund Q-9489 Пб/4304 kg</p> <p>Delivery condition solution annealed: 1900-2010° F(1040-1100° C)/water термообработка: закалка в воду</p>

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A00594	.018	.42	1.37	.039	.024	17.00	10.26	2.07	.064	.28	.05	.16	.006	.10	.01	.027		

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) R _e (R _{eL})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Briell Hardness HB	Impact strength, KV, J	TECHNICAL REQUIREMENTS: Macrostructure - GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) A B C D thin thick thin thick thin thick thin thick 2.0 1.5 1.5 1.0 0.0 0.0 1.0 1.0 ICC-ASTM A262-08 (practice E)-test: O.K. Dimension/surface defects test, anti-mixing test - OK Ratio of reduction-5.3:1
	REQUIRED	30(205)	75 (515)	45	50	140-223	
EFFECTIVE	43.8(302)	85.1(587)	59	78	170	243	

Mechanical properties tested in state of delivery			Manufacturer: PJSC DNIPROSPETSSTAL Date: 15.04.14 Manager of quality assurance department - V. Kapaleva Signed:  Zaporozhye Made in Ukraine.
US - testing	yes	Results: SEP 1921, group 3/class Cc - OK	
Radiation free; mercury free. No Weld or Weld repair.			